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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/245,549	02/05/1999	ANTONIS ZERVOS	10287/039001	5009

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EXAMINER

TUNG, JOYCE

ART UNIT

PAPER NUMBER

1637

DATE MAILED: 01/14/2003

25

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/245,549**

Applicant(s)  
**Zervos**

Examiner  
**Joyce Tung**

Art Unit  
**1637**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Nov 4, 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-27 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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***Response to Amendment***

1. The amendment filed 11/04/2002 has been entered.
2. Claims 1, 3-12, and 15-27 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Passmore et al. (5,976,846).

Applicants argue that Passmore et al. disclose a method of “multi fragment in vivo cloning” used to map mutations, and does not disclose homologous recombination in vivo between a vector and a nucleic acid insert. Nevertheless, if the nucleic acid insert does not have a restriction site, it would be a single nucleic acid insertion. Based upon the teachings of Passmore et al., the technique of Passmore et al. function on a single nucleic acid insertion in vivo cloning. Further, it would have been obvious to substitute the two nucleic acid inserts of Passmore et al. with another a single insert because it was routine practice in the art at the time of the invention with absent an unexpected result.

Applicants further argue that Passmore et al. characterize a method of Degryse et al. as follows: “this method can be used to join at most 2 DNA molecules; this is a significant disadvantage” (See column 3, lines 18-21). However, as indicated in the disclosure of Passmore et al. the method of Degryse et al. involves two-plasmid-based system, Yeast and this is the reason that this is a significant disadvantage (See column 3, lines 18-21) for joining at most two DNA molecules. The independent claims 1, 3 and 26 do not specify which host cell system is used.

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Therefore, the rejection is maintained.

3. Claims 13-14 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Passmore et al. (5,976,846) as applied to claims 1, 3-12, and 15-27 above, and further in view of Fraser et al. (4,870,023).

Applicants argue that Passmore et al. do not teach the method for constructing an in vivo DNA library as presently claimed. As discussed previously, Passmore et al. teach homologous recombination. Passmore et al. do not disclose using an adapter to ligate the nucleic acid insert molecule in which the adapter has a sequence homologous to the first and second region of the vector respectively as recited in claims 13 and 14. Fraser et al. disclose the invention directed to recombination of baculoviruses which encode fusion polyhedrin protein (See the Abstract). The gene can be expressed via homologous recombination in vivo with a parent vector (See column 9, lines 25-30). The method involves using a linker which ligates the polyhedrin DNA into a cloning vector (See column 17, lines 9-14). The linker of Fraser et al. would meet the adapter limitation in instant claims 13-14.

One of ordinary skill in the art at the time of the instant invention would have been motivated to apply the teachings of the reference of Fraser et al. to the method of Passmore et al. with a reasonable expectation of success because the method of Fraser et al. is related to vector/host system which can direct the expression recombinant gene in different hosts (See column 8, lines 10-14). It would have been prima facie obvious to apply Fraser et al.'s adapters

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to Passmore et al. in vivo cloning in order to introduce heterologous DNA. Therefore, the rejection is maintained.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Joyce Tung whose telephone number is (703) 305-7112. The examiner can normally be reached on Monday-Friday from 8:00 AM-4:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached at (703) 308-1119 on Monday-Friday from 10:00 AM-6:00 PM.

Any inquiries of a general nature or relating to the status of this application should be directed to the Chemical/Matrix receptionist whose telephone number is (703) 308-0196.

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6. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Art Unit 1637 via the PTO Fax Center located in Crystal Mall 1 using (703) 305-3014 or 308-4242. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989).

Joyce Tung

  
January 8, 2002

  
**JEFFREY SIEW**  
**PRIMARY EXAMINER**

1/13/03